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(57)
[ABSTRACT]
(Amended)
[PURPOSE]
An electric wave to receive is not specified by directivity of a parabolic antenna, and the choice reception of an electric wave of plural kinds is possible, and establishment work provides an easy parabolic antenna device.
[CONSTITUTION]
It makes install 14 plural parabolic antenna ... in an exterior surface of spherical structure 12 , with the thing which was composed to make each 14 parabolic antenna ... is chosen, and do a receive input, abbreviation of spherical structure 12 can enable the reception of an electric wave altogether, because it is not necessary for *hotondo ndo* to consider directivity, 14 parabolic antenna establishment work can be done easily, and the reception of an electric wave of a plural number kind can be done easily by making install spherical structure 12 in a high place.

[CLAIM FOR THE UTILITY MODEL REGISTRATION]

[Claim 1]
An antenna device; wherein; It makes install plural parabolic antennas in an exterior surface of a spherical structure, each parabolic antenna is chosen, and a receive input can be placed.

[BRIEF DESCRIPTION OF DRAWINGS]

[FIG. 1]
It is a total illustration.
[FIG. 2]
It is a reception circuit diagram.
[FIG. 3]
It is a figure of appearance to show transformation example.
[FIG. 4]
It is the illustration.
[FIG. 5]
It is a figure of appearance.
[DENOTATION OF REFERENCE NUMERALS]
(12) A spherical structure (14) parabolic antenna

[DETAILED DESCRIPTION OF THE INVENTION]

[0001]

[INDUSTRIAL APPLICATION FIELD]
For example, the present invention relates to an antenna device receiving commutator satellite or an electric wave fired by earth stations.
[0002]

[PRIOR ART]
A parabolic antenna was installed conventionally, and there was a satellite broadcasting electric wave or technology to make receive communication electric waves.
[0003]

[PROBLEM TO BE SOLVED BY THE INVENTION]
Because, the prior art, an electric wave to receive is specified by directivity of a parabolic antenna, working was troublesome the establishment of a parabolic antenna, and there was a problem in the handling not to be able to double and the reception of an electric wave of a plural number kind with a parabolic antenna easily.
[0004]

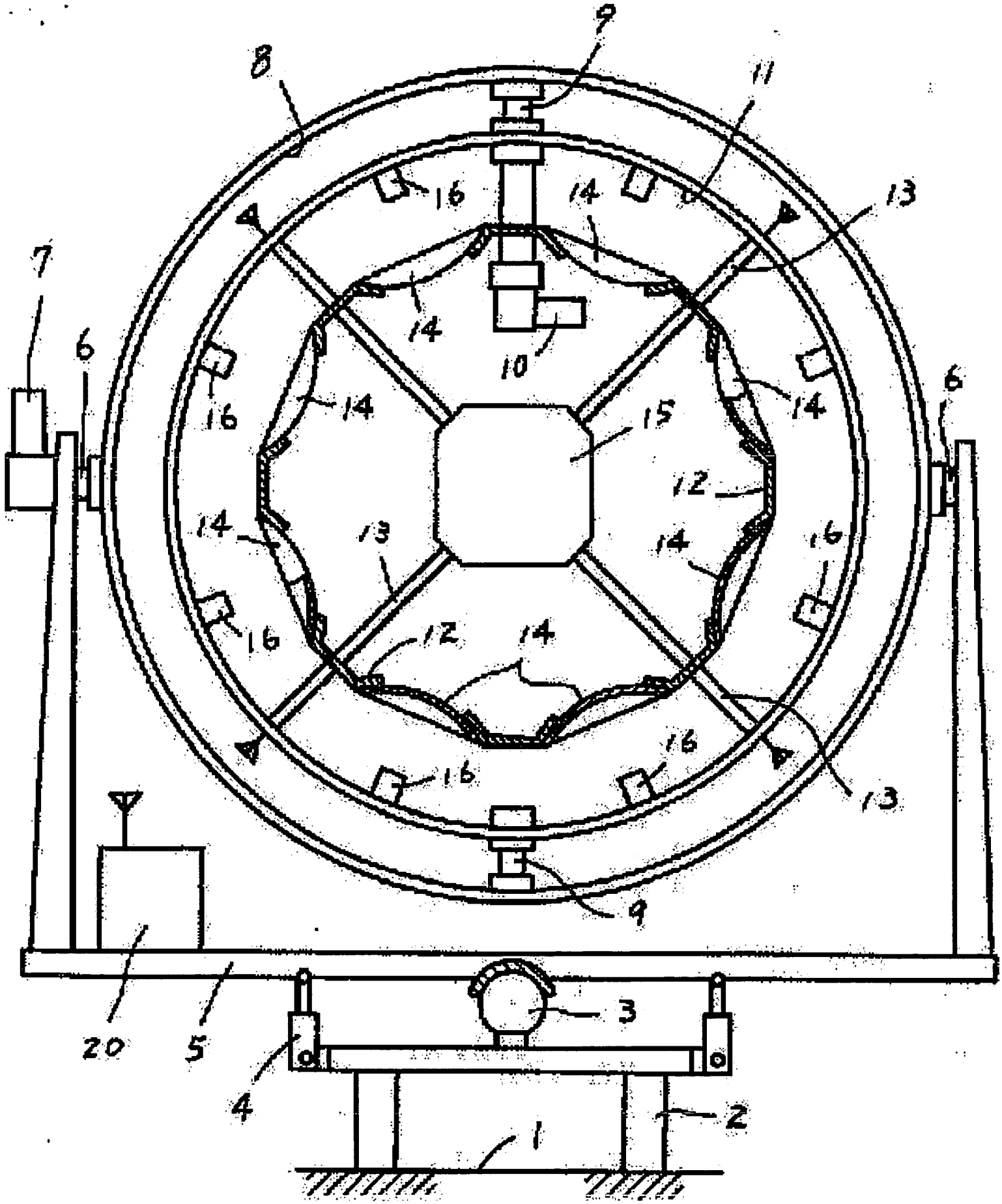
[MEANS TO SOLVE THE PROBLEM]
Due, it is similar, the present invention makes install plural parabolic antennas in an exterior surface of a spherical structure, of a structure spherical with the thing which was composed to make each parabolic antenna was chosen, and do a receive input,

the reception of an electric wave can be generally enabled altogether, because it is not had to consider *hotondo ndo* with directivity, parabolic antenna establishment work is done easily, and the reception of an electric wave of a plural number kind can be done easily by making install a spherical structure in a high place, even if, for example, the number of the satellite broadcasting electric waves or the number of the communication electric waves of increases, each electric wave can be received easily, it is compared with before, and it is handled, and an improvement equal thing of receiver ability can plan simplification of operation easily.
[0005]

[EXAMPLE]
As follows, An example of the present invention is explained in detail based on drawings and figures. Total illustration, FIG. 2 are reception circuit diagrams, and FIG. 1 makes install the fixation level (2) in the roof (1) of a building or a high place such as a steel tower, a frame (8) is established to a carriage (5) outside a circle a ball bearing (3) and a swing business motor (4) are gone through, and to turn a carriage (5) by outside point motor (7) in the fixation level (2) in swing liberty around installation, a cross axle (6), a frame (11) is established to outside frame (8) among circles to turn by an inner point motor (10) among axis core borderlines making it be generally perpendicular for axis core Line of a cross axle (6) again around an axis (9), and prop materials (13) are gone through to an inner frame (11), and synthetic resins non-metal spherical structure (12) is fixed, parabolic antenna (14) ... of a plural number having directivity is installed to an exterior surface of a letter of ball structure (12) , with a thing forming a group of parabolic antenna (14) ... having directivity of generally 360 degrees by a spherical structure (12), a spherical structure (12) is turned around an inner axis (9), a spherical structure (12) is turned again around a cross axle (6), it is composed to make change a support angle of each parabolic antenna (14).
[0006]
In addition, A feed horn making a reception electric wave of a parabolic antenna (14) input with a thing making provide an antenna controller (15) to form with microcomputer inside a ball-shaped structure (12) makes connect converter (16) ... belonging to to the controller (15), and it makes connect a-oriented motor (10) to the controller (15) among a reception control circuit (17), reception output circuits (18), a power supply input circuit (19) and the above.
[0007]
In addition, It makes connect a reception order circuit (21), a receive input circuit (22) and power supply output circuits (23) to the controller (20) with a thing making install a ground controller (20) to form with microcomputer in indoor of the carriage (5) or a building, and it makes connect a-oriented motor (7) to the controller (20) outside a receiver (24) of wide area communication business, a television set (25) such as a satellite broadcasting reception business television and the above.
[0008]
ji is done, and it makes a power supply electric wave shoot from power supply output circuits (23) of the ground controller (20), it makes the power supply electric wave is received with a power supply input circuit (19), and an antenna controller (15) input, it makes a reception channel choice electric wave shoot from a reception order circuit (21) because the reception operates a receiver (24) or a television set (25) with a thing operating the controller (15) each part, it makes input the choice electric wave into an antenna controller (15) from a reception control circuit (17), it makes do choice of a parabolic antenna (14) making receive and an inner point motor (10) and reception angle revision of a parabolic antenna (14) by outside point motor (7) control automatically, and it makes a reception electric wave of the parabolic antenna (14) shoot from reception output circuits (18), it makes ground controller (20) is gone through from a receive input circuit (22), and input the reception electric wave into a receiver (24) or a television set (25), it is composed to regenerate communication subject matter or satellite broadcasting.
[0009]
Even more particularly, A driven wheel (27) is gone through with King Chakravarti (26) to turn by an outside point motor (7), and, as shown in FIG. 3, circle outside rail (28) is installed in turn liberty to a carriage (5), and a driven wheel (30) is gone through with King Chakravarti (29) to turn by an inner point motor (10), and a rail (32) in a circle is installed in turn liberty on a circle frame (31) of outside rail (28), a letter of ball structure (12) is fixed on the inner rail (32), each motor (7) (10) turns a spherical structure (12) by control, that a parabolic antenna (14) angle is compensated can be done.
[0010]
Even more particularly, An electric wave is permeable, and, as shown in FIG. 4, a ball-shaped structure (12) is sealed in the globe (33) inside having airtightness, it makes seal gas (for example, hydrogen or helium) to be lighter than enclosure gas (for example, air) of the globe (33) inside in the structure (12), it makes a floating state support a globe (33) by guidance such as a roller (34), and spraying, the structure (12) are turned by high pressure gas from a nozzle (36) to a fin (35) of the structure (12), that it makes a reception electric wave of a hope channel input from each parabolic antenna (14) ... of the structure (12) can be done.
[0011]
Even more particularly, As shown in FIG. 5, *denha**butsu* makes a few place or a high place stand a spire (37), it makes the spire (37) anchore a letter of ball structure (12), parabolic antenna (14) ... can do what is received by an electric wave from a direction of generally 360 degrees.
[0012]

[EFFECT OF THE INVENTION]

The present invention makes install plural parabolic antenna (14) ... in an exterior surface of a spherical structure (12) as is apparent from an example as things mentioned above , with the thing which was composed to make each parabolic antenna (14) ... is chosen, and do a receive input, abbreviation of a spherical structure (12) can enable the reception of an electric wave altogether, because it is not necessary for *hotondo ndo* to consider directivity, parabolic antenna (14) establishment work can be done easily, and the reception of an electric wave of a plural number kind can be done easily by making install a spherical structure (12) in a high place, even if, for example, the number of the satellite broadcasting electric waves or the number of the communication electric waves of increases, each electric wave can be received easily, it is compared with before, and it is handled, and an improvement equal thing of receiver ability can plan simplification of operation easily.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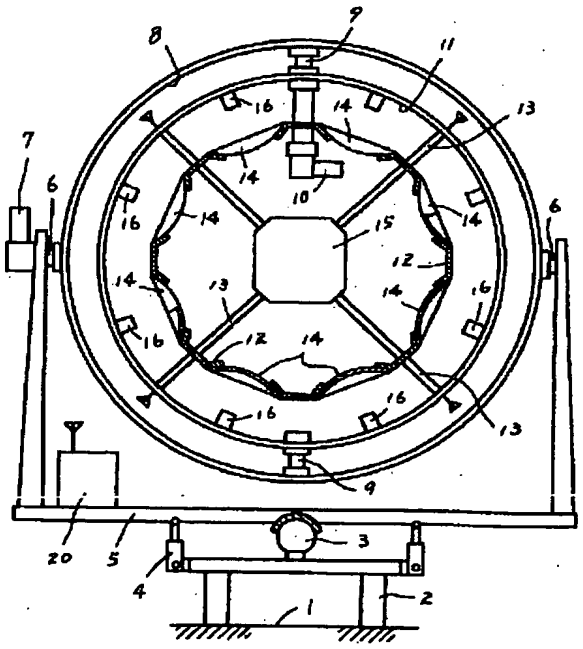
(54)【考案の名称】　アンテナ装置

(57)【要約】　(修正有)

【目的】パラボラアンテナの指向性によって、受信する電波が特定されることがなく、複数種類の電波の選択受信が可能であり、設置作業も容易であるパラボラアンテナ装置を提供する。

【構成】球状構造体１２の外表面に複数のパラボラアンテナ１４…を設置させ、各パラボラアンテナ１４…を選択して受信入力させるように構成したもので、球状構造体１２の略全体で電波の受信を可能にすることができ、指向性などを殆んど考慮する必要がないから、パラボラアンテナ１４設置作業を容易に行うことができると共に、球状構造体１２を高所に設置させることにより、複数種類の電波の受信を容易に行うことができる。



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【実用新案登録請求の範囲】

【請求項１】　球状構造体の外表面に複数のパラボラアンテナを設置させ、各パラボラアンテナを選択して受信入力させるように構成したことを特徴とするアンテナ装置。

【図面の簡単な説明】

【図１】全体の説明図。

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【図２】受信回路図。

【図３】変形例を示す外観図。

【図４】同説明図。

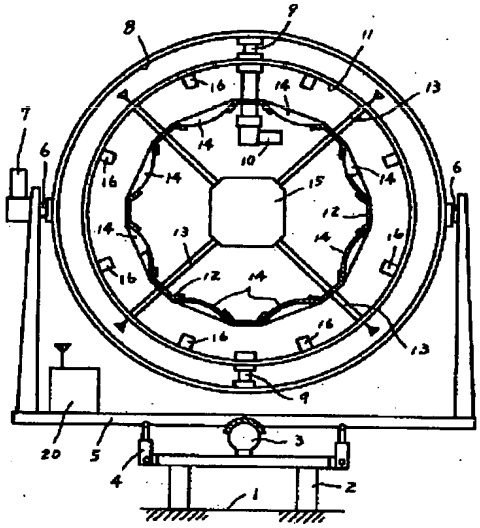
【図５】同外観図。

【符号の説明】

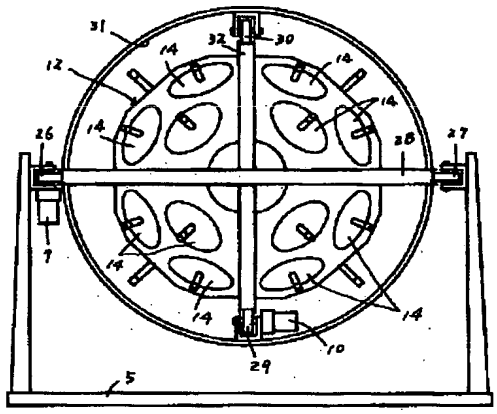
（１２）　球状構造体

（１４）　パラボラアンテナ

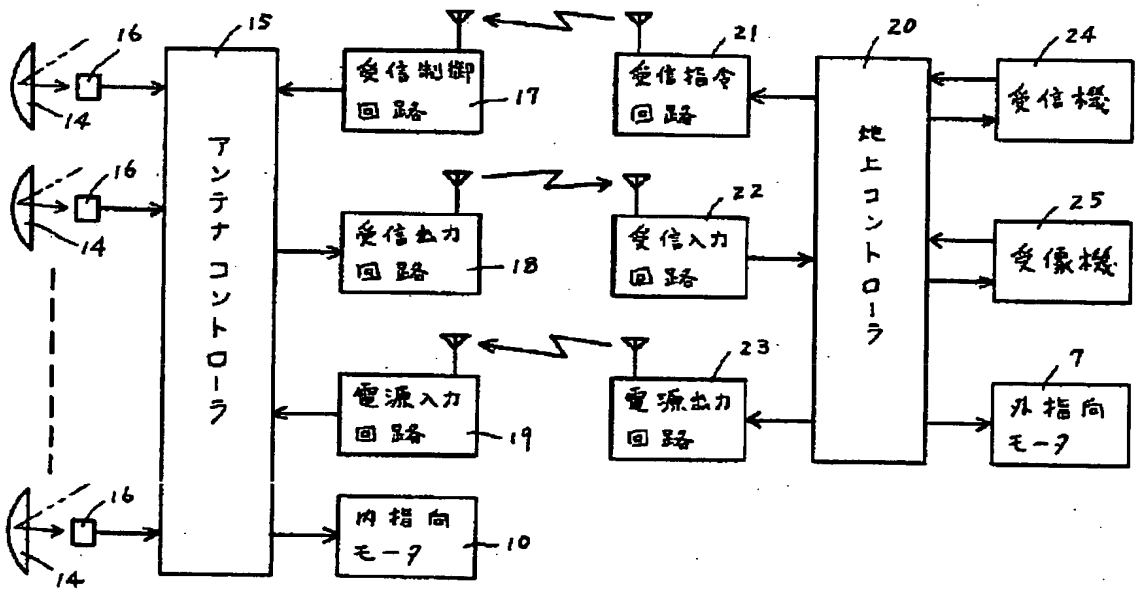
【図１】



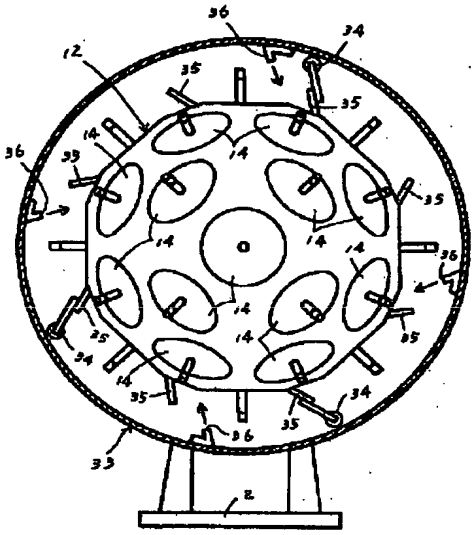
【図３】



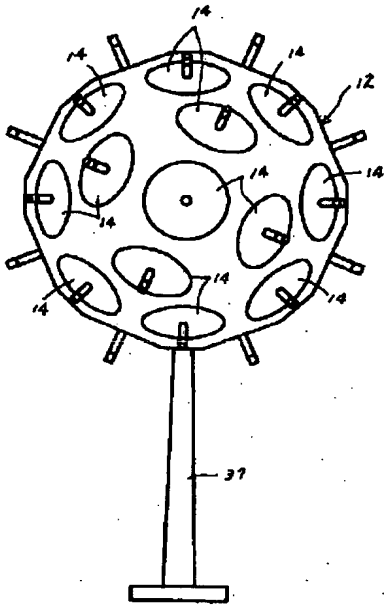
【図２】



【図４】



【図５】



【考案の詳細な説明】

【０００１】

【産業上の利用分野】

本考案は例えば通信衛星または地上局などから発射された電波を受信するアンテナ装置に関する。

【０００２】

【従来の技術】

従来、パラボラアンテナを設置して衛星放送電波または通信電波などを受信させる技術があった。

【０００３】

【考案が解決しようとする課題】

前記従来技術は、パラボラアンテナの指向性によって受信する電波が特定されるから、パラボラアンテナの設置作業が面倒であると共に、複数種類の電波の受信にパラボラアンテナを容易に兼用し得ない等の取扱い上の問題があった。

【０００４】

【課題を解決するための手段】

然るに、本考案は、球状構造体の外表面に複数のパラボラアンテナを設置させ、各パラボラアンテナを選択して受信入力させるように構成したもので、球状構造体の略全体で電波の受信を可能にし得、指向性などを殆んど考慮する必要がないから、パラボラアンテナ設置作業を容易に行い得ると共に、球状構造体を高所に設置させることにより、複数種類の電波の受信を容易に行い得、例えば衛星放送電波数または通信電波数が増えても各電波を容易に受信し得、従来に比べて受信機能の向上並びに取扱い操作の簡略化などを容易に図り得るものである。

【０００５】

【実施例】

以下、本考案の実施例を図面に基づいて詳述する。図１は全体説明図、図２は受信回路図であり、建物の屋上（１）または鉄塔などの高所に固定台（２）を設置させ、球軸受（３）及び揺動用モータ（４）を介して可動台（５）を揺動自在に固定台（２）に取付け、横軸（６）を中心に外指向モータ（７）によって回転

させる円形の外フレーム（８）を可動台（５）に設け、また横軸（６）の軸芯線に対して略直交させる軸芯線上の内軸（９）を中心に内指向モータ（１０）によって回転させる円形の内フレーム（１１）を外フレーム（８）に設けると共に、合成樹脂など非金属製の球状構造体（１２）を内フレーム（１１）に支柱材（１３）を介して固定させ、指向性を有する複数のパラボラアンテナ（１４）…を前記球状構造体（１２）の外表面に取付け、略３６０度の指向性を持つパラボラアンテナ（１４）…群を球状構造体（１２）によって形成するもので、内軸（９）を中心に球状構造体（１２）を回転させ、また横軸（６）を中心に球状構造体（１２）を回転させ、各パラボラアンテナ（１４）の支持角度を変更させるように構成している。

【０００６】

また、マイクロコンピュータで形成するアンテナコントローラ（１５）を前記球状構造体（１２）に内設させるもので、パラボラアンテナ（１４）の受信電波を入力させるフィードホーン付のコンバータ（１６）…を前記コントローラ（１５）に接続させると共に、受信制御回路（１７）、受信出力回路（１８）、電源入力回路（１９）、及び前記の内指向モータ（１０）を前記コントローラ（１５）に接続させている。

【０００７】

また、マイクロコンピュータで形成する地上コントローラ（２０）を前記可動台（５）または建物の屋内に設置させるもので、受信指令回路（２１）、受信入力回路（２２）、及び電源出力回路（２３）を前記コントローラ（２０）に接続させると共に、広域通信用の受信機（２４）、衛星放送受信用テレビジョンなどの受像機（２５）、並びに前記の外指向モータ（７）を前記コントローラ（２０）に接続させている。

【０００８】

而して、前記地上コントローラ（２０）の電源出力回路（２３）から電源電波を発射させ、その電源電波を電源入力回路（１９）で受信してアンテナコントローラ（１５）に入力させ、該コントローラ（１５）各部を作動させるもので、受信機（２４）または受像機（２５）を受信操作することにより、受信指令回路（

２１）から受信チャンネル選択電波を発射させ、その選択電波を受信制御回路（１７）からアンテナコントローラ（１５）に入力させ、受信させるパラボラアンテナ（１４）の選択、並びに内指向モータ（１０）及び外指向モータ（７）制御によるパラボラアンテナ（１４）の受信角度補正を自動的に行わせると共に、前記パラボラアンテナ（１４）の受信電波を受信出力回路（１８）から発射させ、その受信電波を受信入力回路（２２）から地上コントローラ（２０）を介して受信機（２４）または受像機（２５）に入力させ、通信内容または衛星放送などを再生させるように構成している。

【０００９】

さらに、図３に示す如く、外指向モータ（７）によって回転させる転輪（２６）と従動輪（２７）を介して可動台（５）に円形外レール（２８）を回転自在に取付けると共に、内指向モータ（１０）によって回転させる転輪（２９）と従動輪（３０）を介して外レール（２８）の円形枠（３１）に円形内レール（３２）を回転自在に取付け、該内レール（３２）に前記球状構造体（１２）を固定させ、各モータ（７）（１０）制御によって球状構造体（１２）を回転させ、パラボラアンテナ（１４）角度を補正することも行える。

【００１０】

さらに、図４に示す如く、電波透過性で気密性を有する球体（３３）内部に前記球状構造体（１２）を封入し、球体（３３）内部の封入気体（例えば空気）よりも軽い気体（例えば水素またはヘリウム）を前記構造体（１２）に封入させ、ローラ（３４）などの案内によって球体（３３）を浮遊状態に支持させると共に、前記構造体（１２）のフィン（３５）にノズル（３６）からの高圧気体を吹付け、前記構造体（１２）を回転させ、希望チャンネルの受信電波を前記構造体（１２）の各パラボラアンテナ（１４）…から入力させることも行える。

【００１１】

さらに、図５に示す如く、電波遮閉物がない場所または高所に尖塔（３７）を立設させ、該尖塔（３７）に前記球状構造体（１２）を固設させ、略３６０度の方向からの電波をパラボラアンテナ（１４）…に受信することも行える。

【００１２】

【考案の効果】

以上実施例から明らかなように本考案は、球状構造体（１２）の外表面に複数のパラボラアンテナ（１４）…を設置させ、各パラボラアンテナ（１４）…を選択して受信入力させるように構成したもので、球状構造体（１２）の略全体で電波の受信を可能にすることができ、指向性などを殆んど考慮する必要がないから、パラボラアンテナ（１４）設置作業を容易に行うことができると共に、球状構造体（１２）を高所に設置させることにより、複数種類の電波の受信を容易に行うことができ、例えば衛星放送電波数または通信電波数が増えても各電波を容易に受信でき、従来に比べて受信機能の向上並びに取扱い操作の簡略化などを容易に図ることができるものである。